Making ZOPE faster

- Without Squid
- Without CacheFu
- Without Varnish

The Problem (my problem)

- The website uses LinguaPlone (what is that?!?)
  ... It uses Cookies for language selection

- Aaaaagh !

Apache + Dynamic Rewrite Map

```
RewriteMap rpx prg:/home/admin/rpx.py
RewriteRule ^(.*)$ ${rpx:%{HTTP_COOKIE}<>$1<>%{QUERY_STRING}} [P,L]
```

RewriteMap rpx prg:/home/admin/rpx.py

RewriteRule ^(.*)$

${rpx:%{HTTP_COOKIE}
<>$1
<>%{QUERY_STRING}}
[P,L]

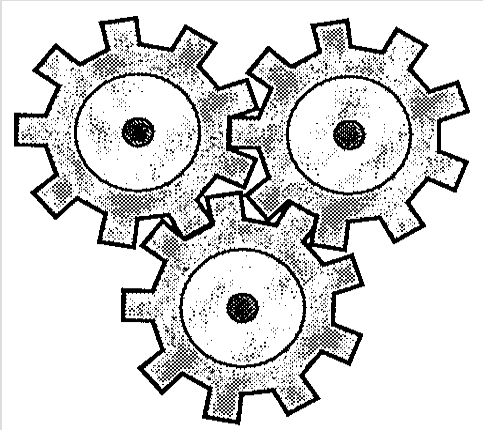
The Dynamic Map Script

```
#!/usr/bin/python -u
import sys, os, time, urllib2, urllib, re

cacheroot = "/var/www/cache"
zoperoot =
  "http://slowzope:10000/VirtualHostBas
  e/http/fastrewriter:80/VirtualHostRoot"
logpath = "/home/admin/rpx.log"
```

The Real Dynamic Map Script

```
cookies, uri, qstring = request.split('<>')
lang = re.findall('I18N_LANGUAGE="([A_Za-z]+)"', cookies)
lang = lang and lang[0] or ''
locuri = uri + "/<>" + lang
if qstring:
    log("PASS %s\n"%locuri)
    sys.stdout.write(zoperoot+uri+"\n")
elif os.path.isfile(cacheroot + locuri):
    log("HIT %s\n"%locuri)
    sys.stdout.write("http://faststatic/cache/%s\n"%locuri)
else:
    log("MISS %s\n"%locuri)
    sys.stdout.write(zoperoot+uri+"\n")
```



The Cache Feeder

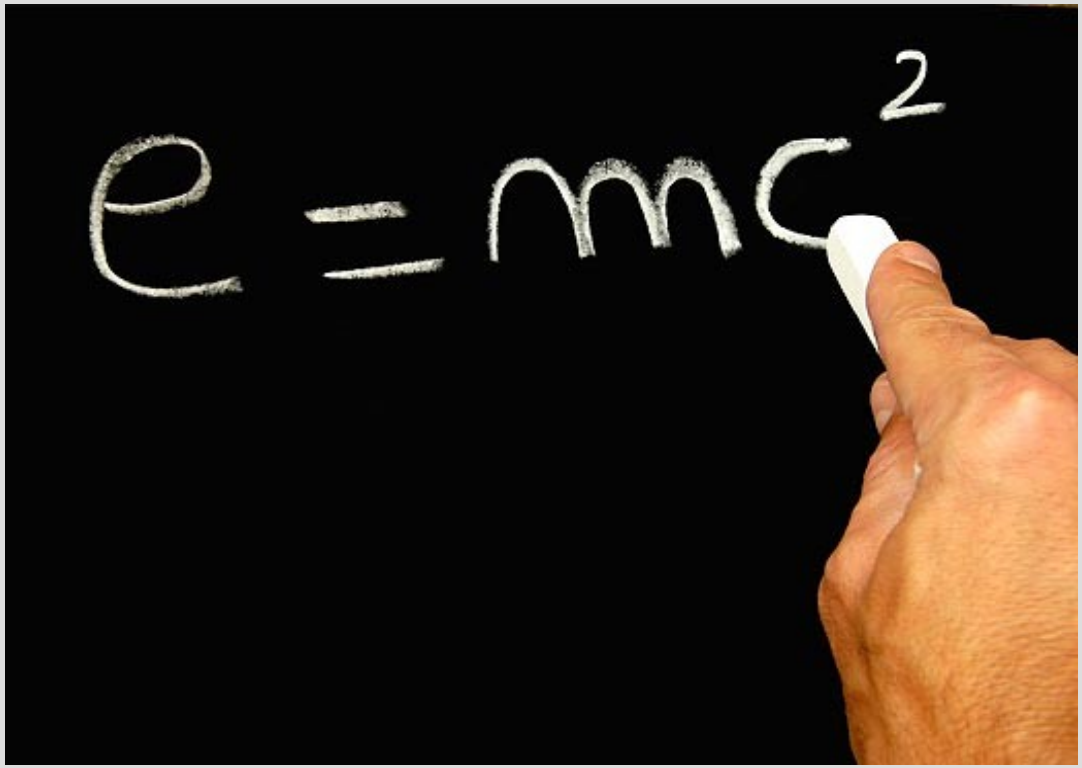
```
if line.startswith("MISS "):
    filepath = line[5:].strip()
    uri, extra = filepath.split("/<>")
    req = urllib2.Request(zoperoot+urllib.quote(uri),
                None, {'Cookie': 'I18N_LANGUAGE="%s"'%extra})
    o = urllib2.urlopen(req)
    data = o.read()
    datadir = cacheroot + "/" + uri
    if not os.path.isdir(datadir):os.makedirs(datadir)
    f = open(datadir + "/.htaccess", "w")
    f.write("ForceType %s\n"%o.info().type)
    f.close()
    f = open(cacheroot + "/" + filepath,"w")
    f.write(data)
    f.close()
    log("FETCH %s <> %s\n"%(filepath,extra))
```

The Cache Itself

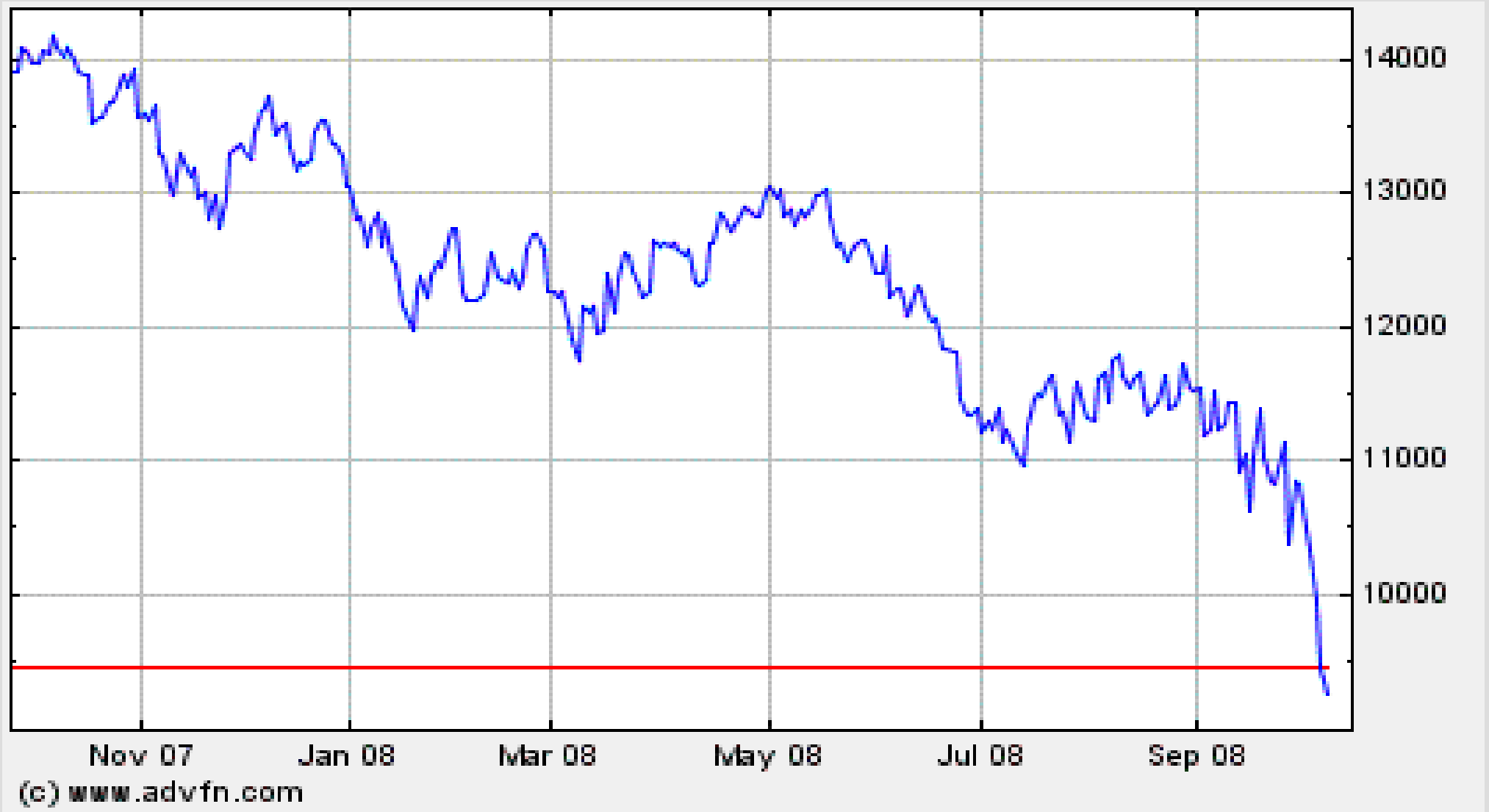
```
admin@cache:~/cache$ find -type f | head
./services/locations-and-contacts/.htaccess
./services/locations-and-contacts/<>
./services/locations-and-contacts/<>fr
./services/locations-and-contacts/<>de
./capabilities-1/navigation-services-1/.htaccess
./capabilities-1/navigation-services-1/<>
./services/index_html/rss.gif/.htaccess
./services/index_html/rss.gif/<>fr
```

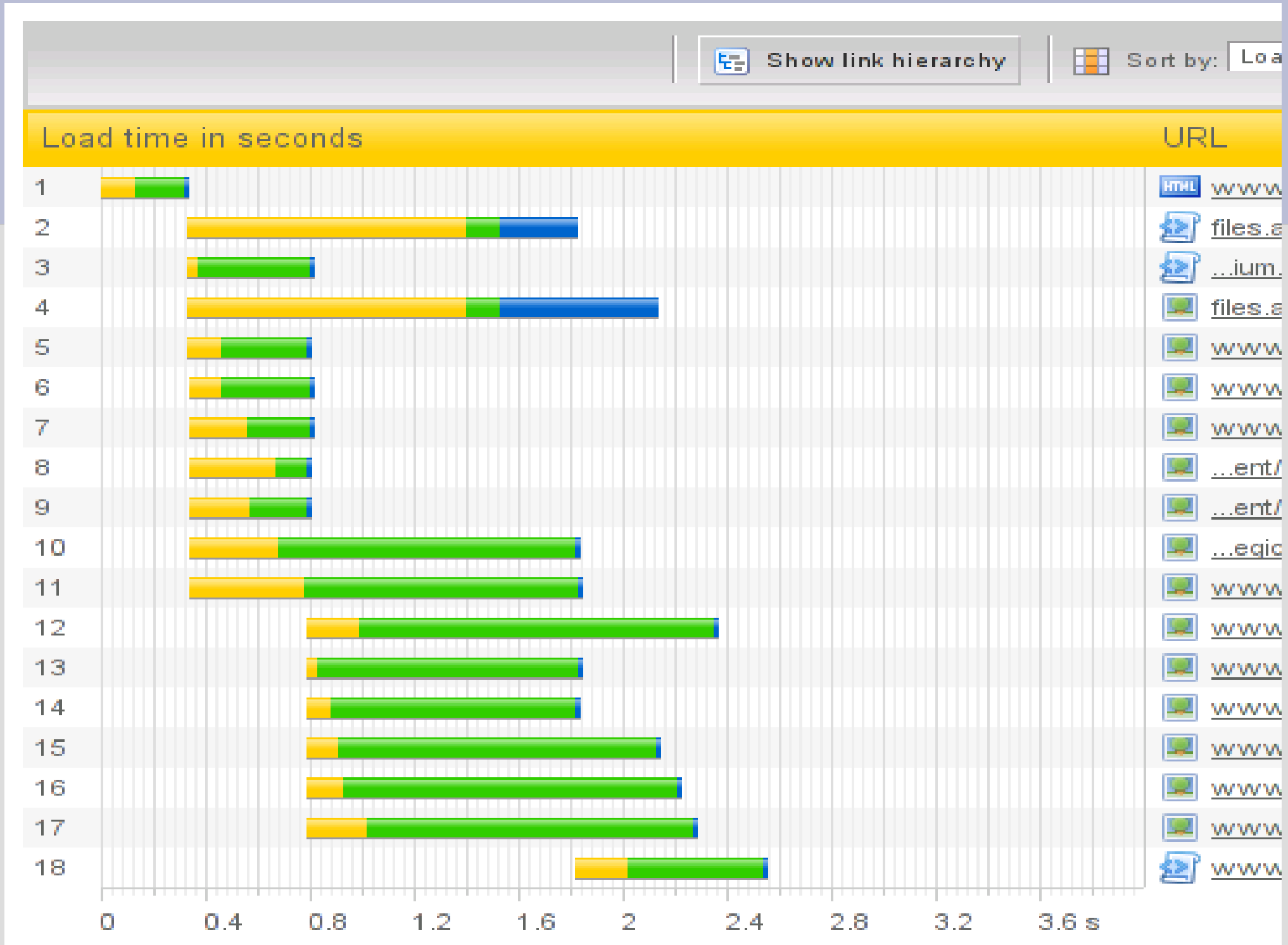
I *swear* the code is simple !

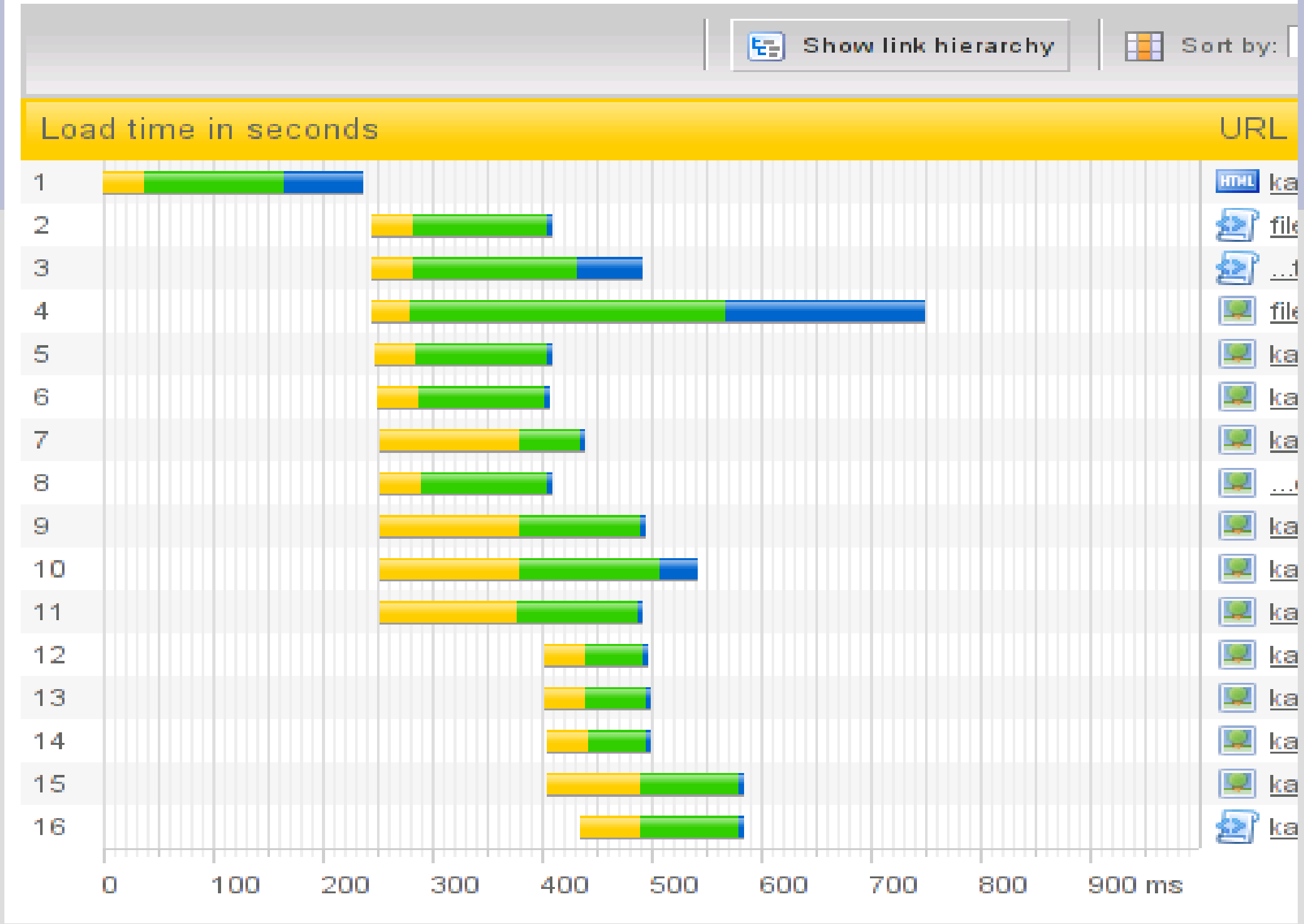
```
admin@cache:~$ wc -l rpx.py
74 rpx.py
```



Results


14000
13000
12000
11000
10000
Nov 07
Jan 08
Mar 08
May 08
Jul 08
Sep 08
(c) www.advfn.com


Show link hierarchy
Sort by:
Load time in seconds
URL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
0
0.4
0.8
1.2
1.6
2
2.4
2.8
3.2
3.6 s


Show link hierarchy
Sort by:
Load time in seconds
URL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
0
100
200
300
400
500
600
700
800
900 ms

Test archive

Date/time	Load time
16 Sep 2008 08:27 CET	2.60 seconds
16 Sep 2008 08:02 CET	2.58 seconds
5 Sep 2008 09:58 CET	8.23 seconds
5 Sep 2008 07:32 CET	7.35 seconds
4 Sep 2008 14:29 CET	3.45 seconds
4 Sep 2008 08:49 CET	5.32 seconds
4 Sep 2008 08:22 CET	1.87 seconds
4 Sep 2008 08:20 CET	11.90 seconds
3 Sep 2008 14:27 CET	3.53 seconds
3 Sep 2008 14:18 CET	4.05 seconds

Test archive

Date/time	Load time
11 Sep 2008 19:02 CET	0.86 seconds
4 Sep 2008 14:29 CET	3.09 seconds
1 Sep 2008 14:25 CET	0.77 seconds
1 Sep 2008 14:22 CET	0.93 seconds
1 Sep 2008 14:15 CET	1.00 seconds
1 Sep 2008 14:14 CET	0.95 seconds

In the unlikely event you want to know more about this really dirty hack ...

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